

ROAD AND TRAIL CLASSIFICATIONS AND STANDARDS

Road and trail standards are used to guide the attainment and maintenance of desired resource conditions and visitor experiences. The specific standard selected for a certain route is based on the designated uses, the management objectives for the surrounding area, and cost.

Use designations and standards may not always appear to be consistent. For example, a trail designated and signed for horse use may also occasionally be needed for vehicle access to an oil and gas well. In such a case, the “public use designation” would be as a horse trail, but the physical standard applied must be sufficient for vehicles. Therefore, the standard would reflect a “road” use, while the general public use would be as a “trail.” The discussion of each road and trail in this plan indicates both designation and standard.

ROADS

Roads are also classified by function. Classes and their definitions are from *Park Road Standards*, National Park Service, 1984. Road standards are guided by *Park Road Standards* but are developed specifically for application in the National Area.

CLASS 1 – Principal park roads or through roads: *Roads that provide the main access routes or that are through roads, for example, TN 297, TN 52, and KY 92*

Standard A – Relatively high traffic volume

Two paved 12-foot travel lanes
2-foot paved shoulders
45-foot cleared right-of-way; 20-foot cleared height
1:4 fore slope and 1:2 back slope, except where rock prohibits grading
1-foot deep ditches, except flat bottom ditches, which will be 2-foot deep

Standard B – Moderate traffic volume

18- to 22-foot road width; paved or gravel (adequate for two vehicles to pass)
2-foot paved or gravel shoulders
30-foot cleared right-of-way; 20-foot cleared height
Slopes and ditches same as A

CLASS 2 – Connector roads: *Roads that provide access within a park to areas of scenic, scientific, recreational, or cultural interest, such as overlooks, campgrounds, etc.*

Standard A – Moderate-to-high traffic volume, including campers, horse trailers

22-foot road width; paved or gravel (adequate for oncoming vehicles to pass)
2-foot paved or gravel shoulders
35-foot cleared right-of-way; 20-foot cleared height
Slopes and ditches same as Class 1

Standard B – Moderate traffic volume, and may be used by trucks

16- to 18-foot road width; paved or gravel (oncoming vehicles would have to slow and may have to use shoulder to ensure safety)
1-foot paved or gravel shoulders
30-foot cleared right-of-way; 20-foot cleared height
Slopes and ditches same as Class 1

Standard C – Low traffic volume, and may be used by trucks, e.g., oil/gas trucks

8- to 12-feet wide “one lane” gravel road (no constructed pull-outs)

No shoulders

12- to 16-feet cleared right-of-way; 12-feet cleared height

Normally no slopes and ditches

CLASS 3 – Special purpose roads: *Roads that provide circulation within public use areas (Development Zones), such as campgrounds*

Standard A – Two-way, low speed, high volume traffic; including trailers, campers

20-feet paved or gravel road

No shoulders

22-feet cleared right-of-way; 20-feet cleared height

Normally no slopes and ditches

Standard B – One-way, low speed, high volume traffic; including trailers, campers

12-feet paved or gravel road

No shoulders

14-feet cleared right-of-way; 20-feet cleared height

Normally no slopes and ditches

CLASS 4 – Primitive roads: *Low traffic volume roads that provide access to remote or undeveloped areas*

Standard

No specific design standard; mostly old roads

Maximum 8-feet cleared right-of-way; 10-feet cleared height

Monitoring for maintenance needs and resource/safety issues

CLASS 5 – Administrative roads: *Roads intended mainly for administrative purposes but are normally open to public use also*

Standard A

Two 11-feet lanes; paved or gravel

2-feet shoulders

35-feet cleared right-of-way; 20-feet cleared height

Slopes and ditches same as Class 1

Standard B

10- to 12-feet gravel or dirt road

No shoulder

12- to 14-feet cleared right-of-way; 10-feet cleared height

Normally no slopes and ditches

May be gated

CLASS 6 – Administrative roads: *Roads intended for administrative purposes that are normally closed to public use*

Standard

Same as 2 C

TRAILS

The following standards shall apply to new construction and to major rehabilitation of existing trails. These are target standards and every attempt will be made to meet them; however, site conditions may not allow for strict compliance in every case. Existing trails may not currently meet these standards, but will be rehabilitated, upgraded, or re-routed to meet these standards as funding and staffing permit. Existing trails causing immediate environmental damage will receive the top priority for rehabilitation.

The standards for specific trail types are typically expressed in terms of maximum widths. Trails can and should be narrower in more remote areas and in areas within the Sensitive Resource Protection Zone. Where the decision is made to maintain a trail on a former roadbed, it need not necessarily be maintained to road width.

GENERAL STANDARDS:

Outslope on trails should be between 5 and 10%.

Grade or slope of the trail will vary according to type of use. The target grade will be between 3% and 10% for all trails. For hiking trails, grades up to 18% will be allowed for distances up to 25 feet. For horse trails, grades up to 25% will be allowed for distances up to 50 feet. In cases where the grade exceeds 10%, efforts will be made to control drainage and erosion using drainage dips, water bars, steps and other structures.

Although Full Bench construction is preferred, Partial Bench construction may be utilized wherever deemed necessary during the design process.

Backslope will be determined as a part of the design and will depend upon the existing soil conditions. The backslope will vary from near vertical for rocky areas to 1:2 for areas where the soil has little cohesion.

HORSE TRAILS

LEVEL 1 (H-1): Major trails with heavy use, typically around development areas (e.g., connector trails for Bandy Creek Stables and Station Camp and Bear Creek Horse Camps

Maximum 8-foot trail tread; hardened surface

Maximum 4-foot clearance each side; 10-foot cleared height

Liberal use of structures, e.g., bridges, earth/gravel water bars

For slope information, see General Standards

LEVEL 2 (H-2): Major trails with frequent high levels of use (e.g., Pilot – Wines Loop and Cumberland Valley Loop

Maximum 8-foot trail tread; hardened surface

Maximum 4-foot clearance each side; 10-foot cleared height

Some structures

For slope information, see General Standards

LEVEL 3 (H-3): Trails with medium to heavy use, often with seasonal peaks; usually on flatter areas with fewer stream crossings (e.g., Jack's Ridge Loop)

Maximum 6-foot trail tread; hardened surface or dirt

Maximum 3-foot clearance each side; 10-foot cleared height

Structures as needed

For slope information, see General Standards

LEVEL 4 (H-4): Extra-wide trails capable of use by horse drawn wagons (e.g., Gobbler's Knob Trail)

Maximum 10-feet trail tread; hardened surface

Maximum 4-feet clearance each side; up to 12-feet cleared height

For slope information, see General Standards

LEVEL 5 (H-5): Trails supporting moderate to heavy use, mostly in the backcountry. Considered the standard for most new trails

Maximum 6-feet trail tread; hardened surface

Maximum 3-feet clearance each side; 10-feet cleared height

Structures on all stream crossings

For slope information, see General Standards

LEVEL 6 (H-6): Trails in the backcountry that are mostly lightly used and follow old roadbeds

Old roadbed serves as trail tread; maximum 8-feet wide, dirt surface

No specific standard width or cleared area in order to retain character

Monitored for safety deficiencies and resource impacts; maintenance as needed

For slope information, see General Standards

FOOT TRAILS

LEVEL 1 (F-1): Heavily used major trails (e.g., Yahoo Falls Trail)

Maximum 30-inch trail tread; hardened surface where needed

Maximum 3-feet clearance each side; 8-feet cleared height

Liberal use of structures

For slope information, see General Standards

LEVEL 1A (F-1A): Heavily used shorter trails (e.g., Blue Heron overlook trail, Mine 18 trails). These trails experience heavy use due to their proximity to developed areas or because they are short trails that are useable by most visitors.

Maximum 6-feet trail tread; paved

Maximum 3-feet clearance each side; 8-feet cleared height

For slope information, see General Standards

LEVEL 1B (F-1B): Trails accessible to the physically challenged

Trail width, surface, slope and other standards vary according to challenge level; ADA standards apply

For slope information, see General Standards

LEVEL 2 (F-2): Trails moderately to heavily used (e.g., Oscar Blevins Farm Loop)

Maximum 30-inch trail tread on constructed sections; other portions on old roads; hardened surface where needed

Where trail utilizes old roadbeds, Maximum 8-feet trail tread width

Maximum 3-feet clearance each side; 8-feet cleared height
Some structures
For slope information, see General Standards

LEVEL 3 (F-3): Trails moderately used in more backcountry settings (e.g., Laurel Fork Creek Trail)

Maximum 2-feet trail tread
Maximum 2-feet clearance each side; 8-feet cleared height
Some structures
For slope information, see General Standards

LEVEL 4 (F-4): Mainly long-distance trails with varying use levels depending on location and season (e.g., John Muir Trail, Sheltowee Trace)

Maximum 30-inch trail tread where constructed; some portions on old roads
Where trail utilizes old roadbeds, Maximum 8-feet trail tread width
Maximum 2-feet clearance each side; maximum 8-feet cleared height
Liberal use of permanent structures
For slope information, see General Standards

BICYCLE TRAILS

As used here, the bicycle trail standard (B) refers to those trails, or trail segments, that are constructed for and used exclusively by mountain bikes. Where bikes are allowed on hiking trails, the standard applied would be within the maximum hiking standard. Bicycles are also allowed on public roads and horse trails, unless specifically disallowed.

“Single track” trails only
Maximum 3-feet trail tread; dirt (avoid gravel and sand)
Maximum 1-foot clearance each side; 8-feet cleared height
For slope information, see General Standards

MULTIPLE-USE TRAILS

Multiple-use trails (MU) provide for use by horses and motor vehicles on the same route. The trail is designed for slow vehicle traffic.

10-feet maximum tread width; can be a hardened surface
Maximum 2-feet clearance each side; 12-feet cleared height
Shoulders and drainage as needed
For slope information, see General Standards
Speed reduction devices and warning signs as necessary to slow vehicle traffic

ALL-TERRAIN VEHICLE (ATV) TRAILS

ATV usage would be allowed on multiple-use trails (during big game season only, by licensed hunters) and on specifically designated trail(s) in the ATV Planning Area. For purposes of this plan, an ATV is defined as a licensed or unlicensed three- or four-wheeled motorized vehicle that has a seat/saddle a rider straddles and

handlebars for steering. The following standards would apply to any trail(s) specifically constructed for ATV use in the ATV Planning Area:

- ✓ Maximum 5-feet tread width; dirt
- ✓ No extra side clearance; 6-feet cleared height
- ✓ Drainage as needed
- ✓ For slope information, see General Standards